

**SEMI-ANNUAL GROUNDWATER MONITORING REPORT  
THIRD AND FOURTH QUARTERS 2005  
Presidio of San Francisco, California**

**E.1 EXECUTIVE SUMMARY**

The Presidio-Wide Quarterly Groundwater Monitoring Program continued, with modifications, during the Third and Fourth Quarters 2005. The Third Quarter 2005 sampling event began on 30 August and ended on 2 September 2005. The Fourth Quarter 2005 sampling event began on 29 November 2005 and was completed on 1 December 2005. This executive summary serves as a semi-annual summary of the groundwater monitoring program at the Presidio for the second half of 2005.

**E.1.1 Changes to the Quarterly Groundwater Monitoring Program, Third and Fourth Quarters 2005**

Several modifications to the Presidio-wide Quarterly Monitoring Program were implemented during the Third and Fourth Quarters 2005. Changes to the monitoring program are depicted in red text in Tables 1A and 1B. The majority of the changes were associated with reductions in sampling frequency at sites with decision documents in place. All changes approved for the Third and Fourth Quarters 2005 are summarized below and are detailed in Tables 1A and 1B, respectively.

**E.1.1.1 Third Quarter 2005**

The following changes were approved and implemented during the Third Quarter 2005, as detailed in Table 1A.

**Sampling Method Modifications**

No monitoring well, piezometer, or seep sampling method modifications were proposed during the Third Quarter 2005.

**Analytical Additions and Reductions**

Several changes in the sampling and analytical program scope were approved for the Third Quarter 2005. The following changes were approved and implemented during the Third Quarter 2005, as detailed in Table 1A.

- General chemistry parameters, dissolved metals, TDS, OCPs, TPHg, TPHd and TPHfo analyses were reduced to semi-annual at Building 1349 Area wells

1349MW02, 1349MW101 and 1349MW102 pending implementation of the Building 1349 Area CAP.

- General chemistry parameters, OCPs, TPHg, TPHd, and TPHfo analyses were reduced to semi-annual within 1349MW03R, in accordance with the Fill Site 5 RAP, due to a lack of cleanup level exceedances.
- General chemistry parameters, TDS, OCPs, TPHg, TPHd, and TPHfo analyses were reduced to semi-annual within Landfill 5 wells LF5GW100 through LF5GW104, in accordance with the Fill Site 5 RAP.
- Dissolved metal analyses were reduced to semi-annual within Landfill 5 wells LF5GW100 and LF5GW102 through LF5GW104. Dissolved metals will continue to be analyzed on a quarterly basis within LF5GW101 in order to evaluate recent RAP cleanup level exceedances.
- Groundwater sampling at Landfill E monitoring wells DAEGW101 through DAEGW104 and Landfill E seep was reduced to annual pending implementation of the Landfill E RAP.
- Fill Site 6 monitoring well LF6GW102 was abandoned as part of the Fill Site 6A remedial action and therefore was removed from the program prior to the Third Quarter 2005.
- Groundwater sampling at Landfill 10 well LF10GW100 and seep LF10SP01 was reduced to annual pending implementation of the Landfill 8 and landfill 10 RAP.
- Golf course monitoring well 300GW01 and the Doyle Drive monitoring wells were removed from the program beginning with Third Quarter 2005 because the data they provide is not significant.

There were no analytical additions during the Third Quarter 2005.

#### **E.1.1.2        Fourth Quarter 2005**

The following changes were approved and implemented during the Fourth Quarter 2005, as detailed in Table 1B.

##### **Sampling Method Modifications**

No monitoring well, piezometer, or seep sampling method modifications were proposed during the Second Quarter 2005.

## **Analytical Additions and Reductions**

There were some additions and a minor reduction in the sampling and analytical program scope approved prior to the Fourth Quarter 2005, as detailed below.

- Arsenic speciation analysis, including inorganic arsenic and arsenic III analysis and arsenic V determination, is no longer required at any groundwater monitoring wells, piezometers or seeps located at the Presidio. A baseline of data has been collected and therefore, this analysis was subsequently removed from the program during the Fourth Quarter 2005.
- Recently installed Fill Site 6 monitoring wells LF6GW104 through LF6GW106 were added to the Fill Site 6 monitoring network, in accordance with the Fill Site 6 RAP. These wells are proposed for general chemistry parameter, dissolved metals, and TDS analyses on a quarterly basis. Additionally, these wells are also proposed for TOC and total sulfide analysis during the First Quarter only.
- Fill Site 6 monitoring wells LF6GW104 and LF6GW106 are also proposed for PAH, TPHg, and TPHd analysis on a quarterly basis, in accordance with the RAP.
- Eleven monitoring wells (FM14EX07GW101, FM14EX07GW102, 1260GW101, 1260GW102, 1260GW103, 1213GW101, 1221GW101, 1221GW102, 1221GW103, 1221GW104, and 514AGW101) associated with the Mini-CAP sites (Appendix A-12), which were added to the Presidio-wide Groundwater Monitoring Program during the Fourth Quarter 2005. These wells are proposed for BTEX, MTBE, TPHg, TPHd, and TPHfo analysis on a quarterly basis.

### **E.1.2 Arsenic and Redox Evaluations**

Several parameters were measured in the field and in the laboratory to help determine the redox state of groundwater at Fill Site 6, Building 231/207, Building 1065, and Commissary/PX Areas. The following parameters were included in the groundwater monitoring program at the aforementioned sites during the Third and/or Fourth Quarter 2005. The following parameters are indicators of changing redox potential within groundwater. ORP is only measured in monitoring wells proposed for sampling by the 'low flow' method (Tables 1A and 1B). The analytes and their use, in terms of determining the current redox state of site groundwater, are listed below.

- **Dissolved Oxygen** – Dissolved oxygen is a field measurement that is collected using a flow through cell or a down-hole probe. Low dissolved oxygen concentrations are typically associated with low redox potential and reducing environments. Dissolved oxygen in the presence of organic carbon is consumed by microorganisms during biodegradation processes and therefore low dissolved oxygen concentrations are indicative of microbial activity.

- **ORP** – ORP is a measurement that is collected in the field with the use of a flow through cell. Groundwater is pumped directly from the aquifer into the flow through cell without being exposed to air. The ORP is then measured by sensors within the flow through cell and recorded. ORP is a direct measurement of redox potential. However, ORP is not equivalent to redox potential. Depending on the type of sensor used and the temperature of the water, redox potential (eH) can be calculated. In general, the lower the ORP values the more reducing the water is, whereas, the greater the ORP value the more oxidizing the water is. ORP measurements are only measured within wells proposed for 'low flow' sampling and are recorded on the monitoring well purge records.
- **Nitrate/Nitrite** – The process of denitrification reduces nitrate to nitrite, which is ultimately reduced to nitrogen gas in reducing environments. A decreasing nitrate concentration trend in groundwater can be indicative of low redox potential, microbial metabolism and a reducing environment. Increasing concentrations of nitrate are typically associated with a rising redox potential.
- **Sulfate/Sulfide** – Decreasing concentrations of sulfate indicate sulfate reduction is taking place due to a reducing environment. Decreasing concentrations of sulfate are usually associated with sulfide production (i.e. sulfide is a product of sulfate reduction) and the repeated presence of sulfide in groundwater further confirms that sulfate is being reduced.
- **TOC** – Decreasing trends in TOC over time indicate that microbial metabolism is taking place and TOC is being consumed.
- **Dissolved Gases (ethane, ethene, and methane)** – Methane is a product of methane fermentation. Methane fermentation is the process in which microorganisms convert organic carbon and water into methane, bicarbonate and hydrogen. An increasing trend in methane concentrations can be associated with a declining redox potential, and vice versa.
- **Arsenic Speciation (As III and As V)** – The relative ratios of the two most common forms of arsenic in groundwater (As III and As V) is indicative of the current redox status of arsenic in groundwater. As III is typically found at higher concentrations, when compared to As V, in reducing environments.
- **Dissolved Arsenic, Iron and Manganese** – Increasing concentrations of arsenic, iron, and/or manganese can be typically associated with a decreasing redox potential. Decreasing concentrations of these metals in association with increasing sulfate concentrations can be associated with an increasing redox potential.

The above analytes and field measurements, except ORP, were collected at Fill Site 6, Building 231/207, Building 1065 and Commissary/PX Areas during the Third and/or Fourth Quarters

2005 within some or all of the aforementioned site wells. ORP was only collected in the field when wells were proposed for 'low flow' sampling.

The above field and analytical data were collected at Fill Site 6, Building 231/207, Building 1065 and Commissary/PX Areas to better understand redox conditions at each site. In addition to the above evaluations, modified redox diagrams were developed for Fill Site 6 (A-3), Building 231/207 (A-10), Building 1065 (A-11) and Commissary/PX (A-16) Areas and presented to illustrate the redox conditions spatially across each site.

The redox diagrams were generated using the Sequence™ program and imported onto the figures. The redox diagrams were developed using concentrations of dissolved oxygen, nitrate, manganese, iron, sulfate and methane. Each redox diagram consists of multiple axes, with each individual axis representing one of the above analytes. Each redox diagram is associated with one monitoring well location. The relative shape of each redox diagram represents an approximation of the redox state within the well studied. In general, the larger the polygon the more oxidizing the environment is within the well location, conversely, the smaller the polygon the more reducing the environment. Examples of typical redox environments (i.e. aerobic, nitrate-reducing, manganogenic, ferrogenic, sulfate-reducing, and methanogenic) and their associated redox diagrams are presented on each redox diagram figure.

### **E.1.3 Significant Observations and Accomplishments in Third and Fourth Quarters 2005**

Significant changes or trends in groundwater characteristics and chemistry as well as significant site-specific milestones are discussed below. Changes to proposed site-specific sampling schedules are discussed in the site-specific sections of Appendix A.

#### **E.1.3.1 Building 900s Area (Appendix A-1)**

In accordance with Tables 1A and 1B, Third and Fourth Quarter 2005 groundwater elevations were collected from all Building 900s Area wells. Annual groundwater sampling was conducted in the First Quarter 2005 and therefore, no groundwater samples were collected from any of the Building 900s Area wells during either the Third or Fourth Quarters 2005.

Groundwater elevations, gradients, and flow directions during Third and Fourth Quarters 2005 are consistent with historical values and interpretations.

The sampling frequency at the Building 900s Area will continue to be annual. The first five-year review will be completed in 2007.

#### **E.1.3.2 Landfill 8 (Appendix A-2)**

In accordance with Tables 1A and 1B, Third and Fourth Quarter 2005 groundwater elevations were collected from all Landfill 8 Area wells and piezometers. Annual groundwater sampling

was conducted in the First Quarter 2005 and therefore, no groundwater samples were collected from any of the Landfill 8 Area wells and piezometers during either the Third or Fourth Quarters 2005.

Groundwater elevations, gradients, and flow directions during Third and Fourth Quarters 2005 are consistent with historical values and interpretations.

Until the Landfill 8 RAP has been finalized and implemented, the sampling frequency at Landfill 8 will continue to be annual during the First Quarter only. Sampling at Landfill 8 will be performed per the Landfill 8 RAP following the RAP implementation.

#### **E.1.2.3        Fill Site 6 (Appendix A-3)**

Three new monitoring wells (LF6GW104 through LF6GW106) and six new piezometers (LF6PZ101 through LF6PZ106) were added to the Fill Site 6 monitoring program during the Fourth Quarter 2005. Groundwater elevations, gradients, and flow directions are consistent with historical values and interpretations. Significant observations at Fill Site 6 during the Third and Fourth Quarters 2005 are discussed below.

Aldrin was detected for the first time at Fill Site 6 in the sample collected from monitoring well LF6GW103 during the Third Quarter 2005. The detected concentration (0.05 µg/L) within LF6GW103 exceeds the RAP-specified cleanup level of 0.00013 µg/L. Aldrin was not detected during the Fourth Quarter 2005 within LF6GW103 and therefore, this detection may be anomalous. OCPs will continue to be monitored within LF6GW103 to determine if this detection is valid.

Sulfate concentrations within LF6GW103 and 231GW09 appear to be decreasing slowly over time. Sulfate concentrations will continue to be monitored to determine if this trend continues.

General chemistry parameters were analyzed for the first time in samples from new monitoring wells LF6GW104, LF6GW105 and LF6GW106. The majority of the general chemistry parameter results within LF6GW104 through LF6GW106 are similar to historical concentrations measured within other Fill Site 6 monitoring wells, with the exception of nitrate within LF6GW104. Nitrate was detected at a concentration of 20 mg/L within LF6GW104 during the Fourth Quarter 2005. This concentration is significantly higher than the previous high nitrate concentration (4.3 mg/L) measured at Fill Site 6 within LF6GW103. Concentration trends within these wells will be evaluated in future quarterly monitoring events as more data becomes available.

#### **E.1.2.4        Battery Howe/Wagner (Appendix A-4)**

In accordance with Tables 1A and 1B, Third and Fourth Quarter 2005 groundwater elevations were collected from Battery Howe/Wagner wells. Annual groundwater sampling was conducted

in the First Quarter 2005 and therefore, no groundwater samples were collected from any of the Battery Howe/Wagner wells during either the Third or Fourth Quarters 2005.

Groundwater elevations, gradients, and flow directions during Third and Fourth Quarters 2005 are consistent with historical values and interpretations.

#### **E.1.2.5 Building 1349 Area (Appendix A-5)**

Five Building 1349 monitoring wells were sampled during the Third Quarter 2005. Two of these wells (1349MW03R and 1349MW100) were sampled during the Fourth Quarter 2005.

The Building 1349 Study Area Final CAP was submitted to the stakeholders in February 2006. Groundwater sampling at the Building 1349 Area will be conducted in accordance with the CAP when the CAP is implemented.

TPHd was detected in monitoring well 1349MW100 above its Building 1349 Area CAP cleanup level during both the Third and Fourth Quarters 2005. Of the monitoring wells sampled, monitoring well 1349MW100 continues to be the only site location where TPH concentrations are detected and TPHd concentrations often exceed groundwater cleanup levels.

Eight different OCPs were detected within monitoring well 1349MW100 during the Third Quarter 2005 at concentrations ranging from 0.08 to 8.5 µg/L. Five of the eight OCPs with CAP-specified cleanup levels were detected at concentrations exceeding those cleanup levels during the Third Quarter 2005 (Table A-5-4). During the Fourth Quarter 2005, alpha-chlordane and gamma-BHC were detected within 1349MW100 at concentrations of 0.3 and 1.3 µg/L, respectively, which exceed the CAP-specified cleanup levels. Four OCPs were detected at new high concentrations during the Third and Fourth Quarter 2005. In addition to 1349MW100, beta-BHC has been detected once in the Fourth Quarter 2004 in monitoring wells 1349MW03R and 1349MW101. These wells are downgradient of monitoring well 1349MW100.

Chromium was detected at a concentration exceeding its CAP cleanup level within 1349MW02 during the Third Quarter 2005. No other metals were found in excess of cleanup levels within 1349MW02 during the Third Quarter 2005.

New high levels of barium, calcium, iron, magnesium, manganese, sodium, zinc and TDS were detected at monitoring well 1349MW100 during the Third Quarter 2005. Of these detections, barium was the only parameter found in excess of CAP cleanup levels.

The results of groundwater sampling at the Building 1349 Study Area, indicate that various analytes at monitoring well 1349MW100 continue to be detected above CAP cleanup levels. Groundwater concentration trends, within both monitoring well 1349MW100 and the remaining wells associated with Building 1349 Study Area, will continue to be monitored and evaluated.

#### **E.1.2.6        Fill Site 1, Landfill 2, El Polin Spring, Tennessee Hollow, And Upgradient Wells (Appendix A-6)**

No significant trends were observed during the Third and Fourth Quarters 2005. The sampling frequency at Fill Site 1 and Landfill 2 has been reduced to annual (Tables 1A and 1B) until a monitoring plan is established or until the sites have undergone clean closure.

Annual analysis of 22 dissolved metals and quarterly monitoring of TDS, dissolved oxygen, and cyanide will be conducted at El Polin Spring in order to evaluate the potential for human health risk exposure and to ensure that potential changes in water chemistry are identified in a timely manner. No additional changes to the groundwater monitoring program have been proposed at this site.

#### **E.1.2.7        Landfill E (Appendix A-7)**

Groundwater elevations, gradients, and flow directions are consistent with historical values and interpretations. No significant trends or observations were identified at Landfill E during the Third and Fourth Quarters 2005.

In accordance with the sampling plan, no groundwater samples were collected, thus there are no analytical results for the Third and Fourth Quarters 2005.

The reduction to annual sampling at monitoring wells DAEGW03 through DAEGW08 until a Landfill E RAP have been finalized was approved by the stakeholders prior to First Quarter 2004. Sampling will be performed per the RAP once it has been finalized and implemented.

#### **E.1.2.8        Landfill 4 (Appendix A-8)**

General chemistry parameters at the site have remained relatively stable.

No TPH or PAH compounds were detected at LF4 during the Third Quarter 2005. No TPH or PAH compounds have ever been detected above RAP-specified cleanup levels within LF 4 monitoring wells.

Chlorinated herbicides have never been detected in any LF 4 groundwater samples.

Chlorodiphenyl (Aroclor 1260) was detected within the QC duplicate sample collected from monitoring well LF4GW104 during the Third Quarter 2005 at a concentration exceeding its applicable cleanup level (1.0  $\mu\text{g/L}$ ). However, PCBs have never been detected in any other LF 4 monitoring well samples in the past.

Acetone, benzene, carbon disulfide, chlorobenzene, dibromochloromethane, PCE, and toluene have been detected in LF4 wells, but at concentrations well below cleanup levels. These VOCs have not been detected in any LF4 wells in 2005.

TCE was the only groundwater COC identified in the RAP, due to a detection of 6.2 µg/L in well LF04GW03 in February 1999. This detection was qualified and the laboratory noted that the sample detections were “very possibly due to instrument contamination.” The laboratory performed a re-analysis of the sample and noted that the sample did not contain TCE or other target compounds (although the re-analysis was out of holding times). TCE was never detected in samples from well LF4GW03 prior to February 1999. This well is often dry or has insufficient water for sampling. However, TCE was not detected in this well since February 1999 and has never been detected in other LF4 wells.

No OCPs were detected within any LF 4 monitoring wells during the Third Quarter 2005. Beta-BHC was detected within LF4GW102 during the First and Second Quarters 2003 at concentrations exceeding its applicable cleanup level (0.037 µg/L), but has not been detected since. Future PCB and OCP results within LF 4 monitoring wells will continue to be monitored, in accordance with the RAP.

Nickel was the only metal detected above its RAP-specified cleanup level (100 µg/L) during the Third Quarter 2005 at a concentration of 220 µg/L within LF4GW103. Several other metal concentrations were elevated during the Third Quarter 2005, primarily within LF4GW103. Additionally, several general chemistry parameters were also detected at historical high concentrations within this well. A review of current and historical purge records did not provide a reason for this change. Dissolved metal and general chemistry results will continue to be monitored in this well to determine if this is a new trend. Dissolved metals concentrations within other site wells have remained relatively stable. The potential for increasing or decreasing dissolved metals concentration trends at the site will continue to be evaluated in future monitoring events.

For TPH, PAHs, VOCs, OCPs, and chlorinated herbicides, the post-remediation groundwater monitoring requirements from the RAP have been met and cleanup levels have been met for the required frequency of monitoring. The Trust requests cessation of these analytical compounds from the Groundwater Monitoring Program at LF4 prior to Q1 2006.

#### **E.1.2.9            Fill Site 5 (Appendix A-9)**

No TPH, VOCs, PCBs, PAHs or chlorinated herbicides were detected above their respective RAP-specified cleanup levels within any FS 5 or associated Building 1349 Area monitoring well samples, during the Third or Fourth Quarters 2005. Due to their upgradient locations, FS 5 RAP cleanup levels do not apply to monitoring wells 1349MW01, 1349MW02, or 1349MW100.

Per the FS 5 RAP, the reduction to semi-annual sampling for VOCs and PAHs within FS 5 monitoring wells (LF5GW100 through LF5GW104) was approved in the Fourth Quarter 2004 because no RAP-specified cleanup levels have been exceeded in at least four quarters for any of these compounds within any FS 5 monitoring well samples. Additionally, general chemistry parameters, TDS, OCPs and TPH sampling and analyses were reduced to semi-annual prior to

the Third Quarter 2005 because RAP-specified cleanup levels have not been exceeded. Dissolved metals were reduced to semi-annual sampling in all FS 5 monitoring wells, except LF5GW101 and 1349MW03R, due to a lack of cleanup level exceedances.

Several TPH, VOC, OCP, and PAH compounds were detected in upgradient Building 1349 monitoring well 1349MW100 during the Third and Fourth Quarters 2005. In addition, elevated dissolved metal concentrations during the Third Quarter 2005 within monitoring well 1349MW100 were significant. The FS 5 RAP cleanup levels do not apply to upgradient Building 1349 monitoring wells; however, the potential for increasing or decreasing TPH, VOC, OCP, PAH and dissolved metals concentration trends within 1349MW100 will continue to be evaluated on a quarterly basis in future monitoring events.

#### **E.1.2.10 Building 231/207 Area (Appendix A-10)**

Building 231/207 Area monitoring well 231MW09 was purged and sampled during the Third and Fourth Quarter 2005 and was the only Building 231/207 monitoring well scheduled for sampling during these events. No TPH or VOC compounds were detected at or above the laboratory reporting limits.

The majority of detected analytes were within historical bounds during the Third and Fourth Quarters 2005. No CAP-specified cleanup levels were exceeded during either the Third or Fourth Quarters 2005. There are no proposed changes to the groundwater sampling schedule or procedures at this site.

#### **E.1.2.11 Building 1065/1027 Area (Appendix A-11)**

Dissolved arsenic and iron concentrations were observed to drop during the Fourth Quarter 2004 within 1065PZ1A and 1065PZ2A, which are located downgradient of the interim removal action conducted in November 2003. The drop in concentration during the Fourth Quarter 2004 was believed to be a result of the interim remedial action. A rebound in arsenic and iron concentrations occurred within these piezometers during the First and Second Quarters 2005 and a subsequent drop in concentrations occurred again in the Third and Fourth Quarters 2005. Dissolved arsenic and iron concentrations will continue to be monitored downgradient of the interim removal action, to assess if the rise and subsequent fall of arsenic and iron concentrations is based on the impact of the November 2003 interim removal action, or is based on seasonal fluctuations.

Potential changes to the groundwater flow patterns and any potential impact to contaminant migration will continue to be evaluated in future quarterly monitoring events.

Groundwater sampling frequency was reduced to annual within all Building 1065/1027 Area wells and piezometers, except 1065PZ1A, 1065PZ1B, 1065PZ2A, 1065PZ4A, 1065PZ5AR, 1065MW9A, 1065MW9B, 1065MW101, 1065MW102, and 1047MW101 until the Building

1065/1027 Area CAP is approved and implemented, at which time the groundwater monitoring program will be conducted in accordance with the CAP.

#### **E.1.2.12 Mini-CAP Areas (Appendix A-12)**

The Mini-CAP Areas were added to the Presidio-wide Groundwater Monitoring Program in the Fourth Quarter 2005. Benzene was detected in monitoring well 1213GW101 at a concentration of 12 C  $\mu\text{g}/\text{L}$  during the Fourth Quarter 2005. This concentration exceeds its groundwater cleanup level of 1  $\mu\text{g}/\text{L}$ . Ethylbenzene and total xylenes were also detected in the 1213GW101 sample at 2.9 and 2.3 C  $\mu\text{g}/\text{L}$ , well below associated cleanup levels. TPHg was detected below the 770  $\mu\text{g}/\text{L}$  cleanup level within 1213GW101 and 1221GW102 at 240 and 70  $\mu\text{g}/\text{L}$ , respectively.

No other compounds were detected in Mini-CAP groundwater samples during the Fourth Quarter 2005.

#### **E.1.2.13 Nike Missile Facility (Appendix A-13)**

Groundwater elevations, gradients, and flow directions during the Third and Fourth Quarters 2005 are consistent with historical values and interpretations. NDMA was detected above laboratory limits within three of the four Nike Missile Facility monitoring wells sampled during the Third Quarter 2005. The detected concentration of NDMA within the NKGW04 primary sample matches the EPA's Preliminary Remedial Goal (PRG) for tap water of 0.0013  $\mu\text{g}/\text{L}$ , but none of the detected results exceed the California Department of Health Services (CDHS) action level of 0.01  $\mu\text{g}/\text{L}$ .

A RAP is currently being prepared for the Nike Missile Facility and a groundwater monitoring plan will be implemented in accordance with the RAP, when it is approved by the DTSC, RWQCB, and other stakeholders. NDMA will continue to be sampled during the First and Third Quarters within all Nike Missile Facility monitoring wells until the RAP is implemented. The addition of field QC blanks for NDMA will be added to the program during the First Quarter 2006 in order to comply with the QAPP and guard against unknown field contamination of the sample. There are no other proposed changes to the groundwater monitoring program at this site.

#### **E.1.2.14 Baker Beach Disturbed Area 3 (Appendix A-14)**

The Third and Fourth Quarters 2005 were the fourth and fifth monitoring events conducted at BBDA 3, since the RAP groundwater monitoring network was installed. No RAP-specified cleanup level exceedances have been detected to date within any groundwater or surface water samples collected following the remedial action.

No significant trends were identified during the Third and Fourth Quarters 2005 at BBDA 3. Future detections and trends will continue to be monitored and evaluated in accordance with the RAP.

#### **E.1.2.15      Landfill 10 (Appendix A-15)**

Groundwater elevations, gradients, and flow directions during Third and Fourth Quarters 2005 are consistent with historical values and interpretations.

The sampling frequency at Landfill 10 has been reduced to annual and no sampling was conducted during the Third or Fourth Quarters 2005.

The *Five Year Review and Final Investigation Report for Landfills 8 and 10* (FYR) was submitted to the regulatory agencies and RAB in January 2004. The Focused Feasibility Study (FFS) for Landfills 8 and 10 has been prepared. Additionally, the Trust is currently writing a RAP and designing new remedial actions for the two landfill sites. The RAP is scheduled to be completed in 2008.

#### **E.1.2.16      Commissary/PX Area (Appendix A-16)**

Dissolved arsenic was detected in the sample collected from 610SP01 during the Third Quarter 2005 at a concentration of 10 µg/L, which is the applicable cleanup level for dissolved arsenic within the Commissary/PX Area. Dissolved arsenic was not detected at or above its applicable cleanup level during the Third or Fourth Quarter 2005.

No CAP-specified cleanup levels were exceeded during either the Third or Fourth Quarters 2005. No other significant findings or data trends were observed during either the Third or Fourth Quarters 2005.

Groundwater monitoring will continue at the Commissary/PX Area in accordance with Table 1B until the CAP is finalized and implemented, at which point groundwater monitoring will be conducted in accordance with the Final CAP.